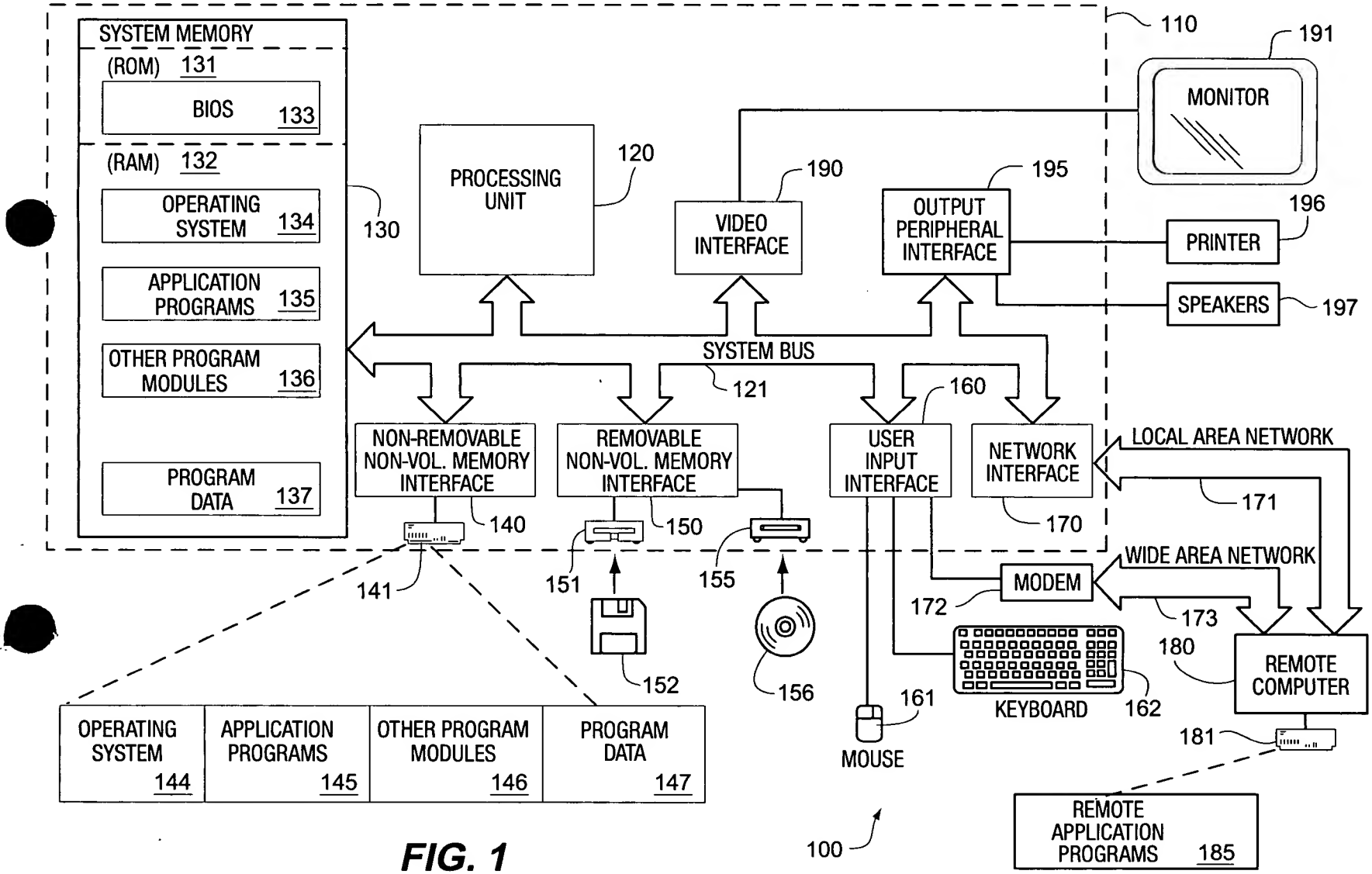
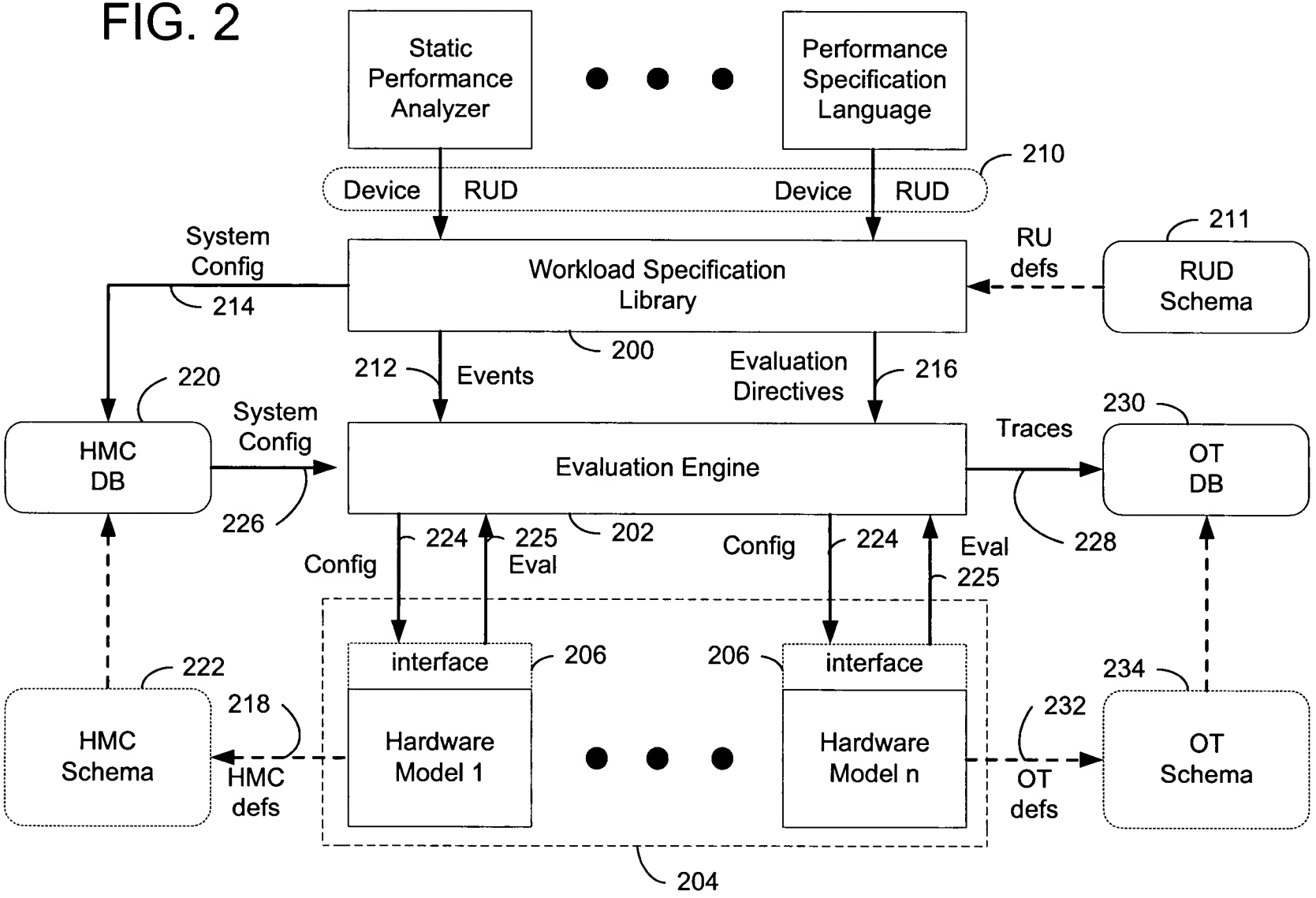


FIG. 1

09632521.080400

FIG. 2



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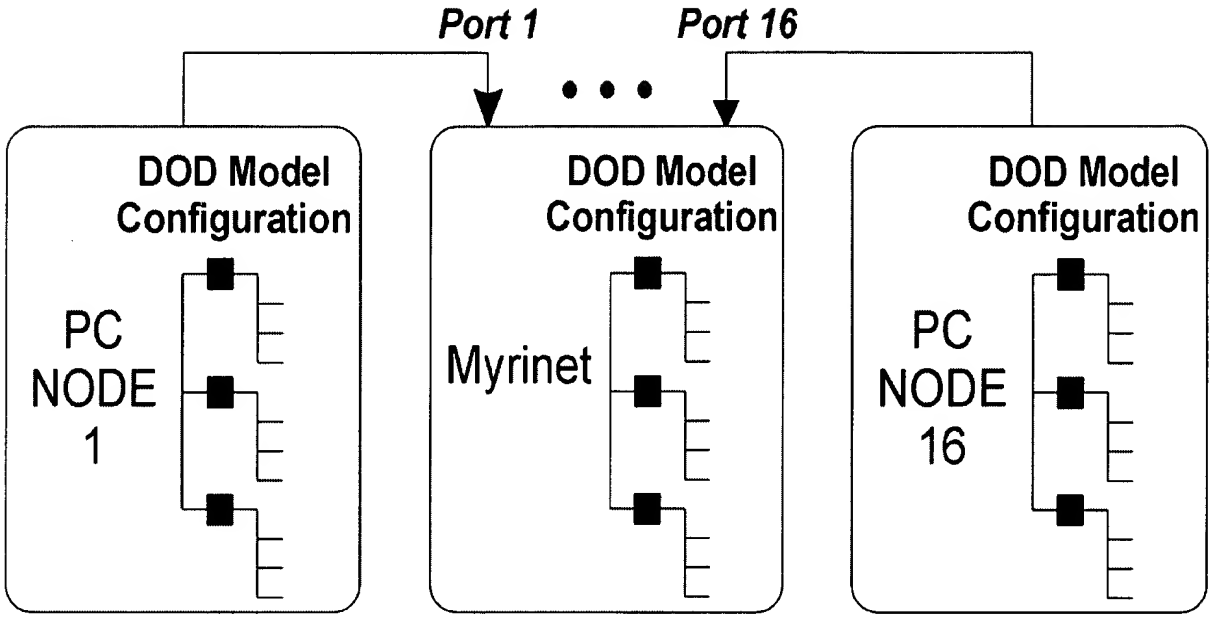

DOD - Document Object Model

FIG. 3

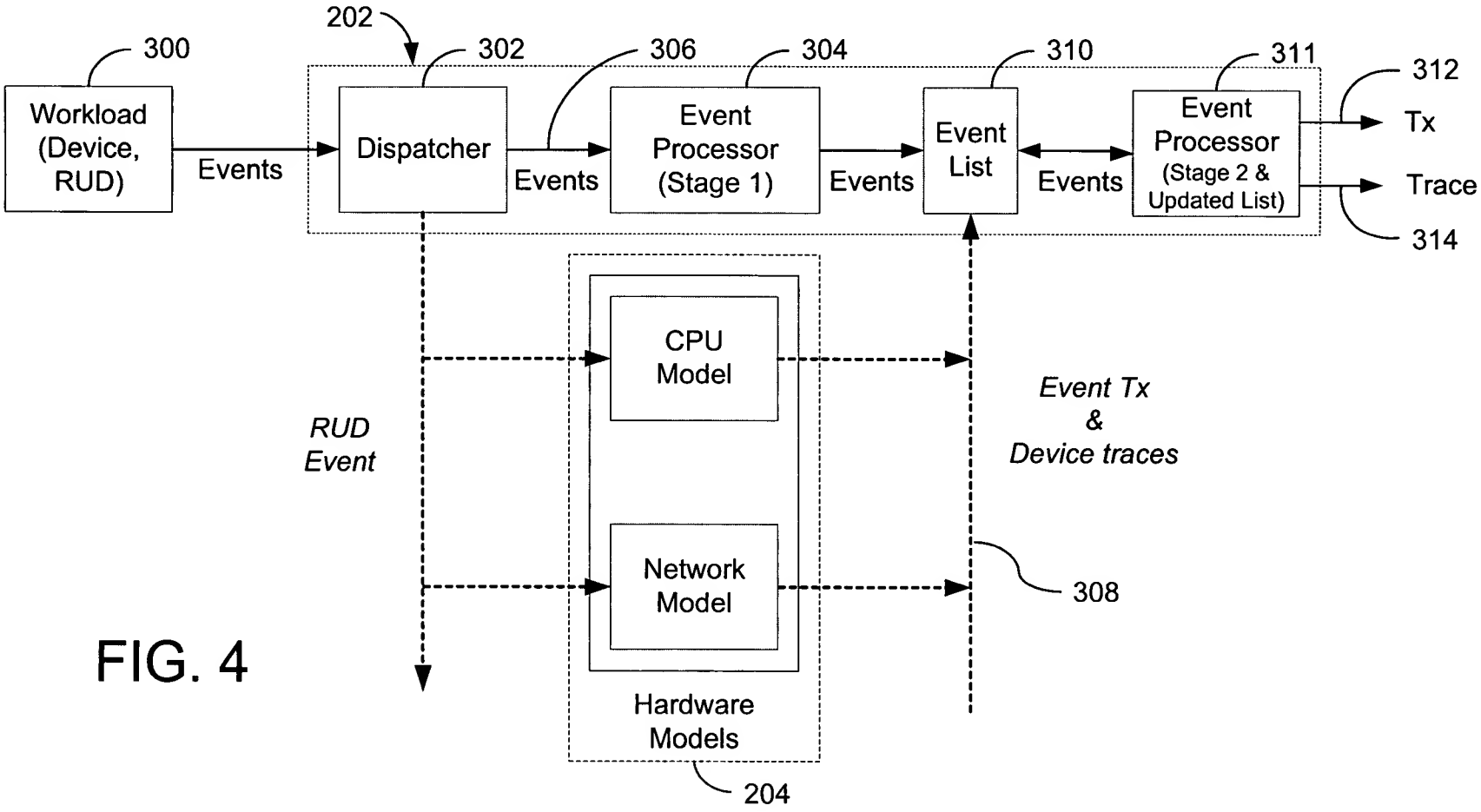
202
300
302
306
304
310
311
312
Workload (Device, RUD)
Events
Dispatcher
Events
Event Processor (Stage 1)
Events
Event List
Events
Event Processor (Stage 2 & Updated List)
Tx
Trace
314
CPU Model
Network Model
Hardware Models
204
RUD Event
Event Tx & Device traces
308

FIG. 4

	Event Object Element	Source	Description
400	Event list	Workload	Reference to system, processor, or process event list
402	Device	Workload	Reference to hardware device
404	Model	Workload	Reference of model hardware device to support multiple models for device
406	Resource Usage Data	Workload	Input to the hardware device models (XML script)
408	Inter-event relation	Workload	Reference to other event representing component interactions
410	Duration	hardware model	Duration of event determined from hardware model evaluation
412	Output traces	hardware model	Detailed hardware model performance traces. (XML script)

FIG. 5

	Class Name	Description
	Workload Model API	
500	pti_workload	Define workload and evaluation modes
502	pti_ddpar	Handle data dependent parameters
504	pti_register	Register models to the evaluation engine
	Hardware Model API	
506	pti_hmod	Hardware model services
508	pti_event	Event handling
510	pti_eviter	Event iterator through event list
512	pti_accevlist	Iterator though event lists
	Hardware & Model Configuration API	
514	pti_hmc	Hardware & model configuration
	Output Trace API	
516	pti_otrace	Output trace processing

FIG. 6

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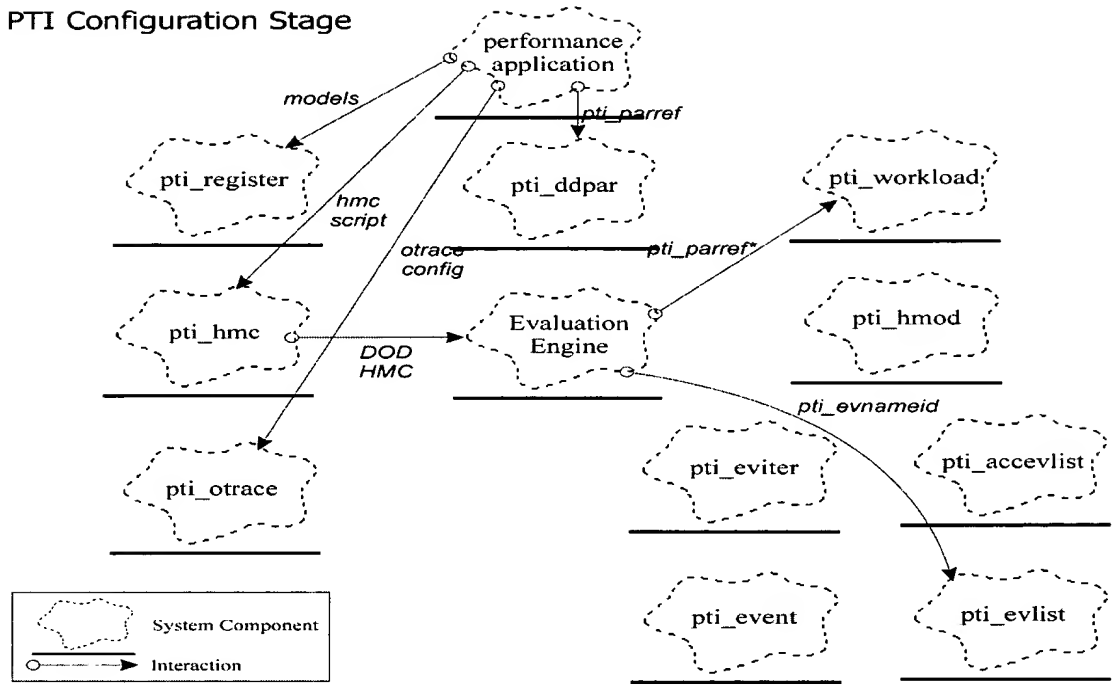


FIG. 7

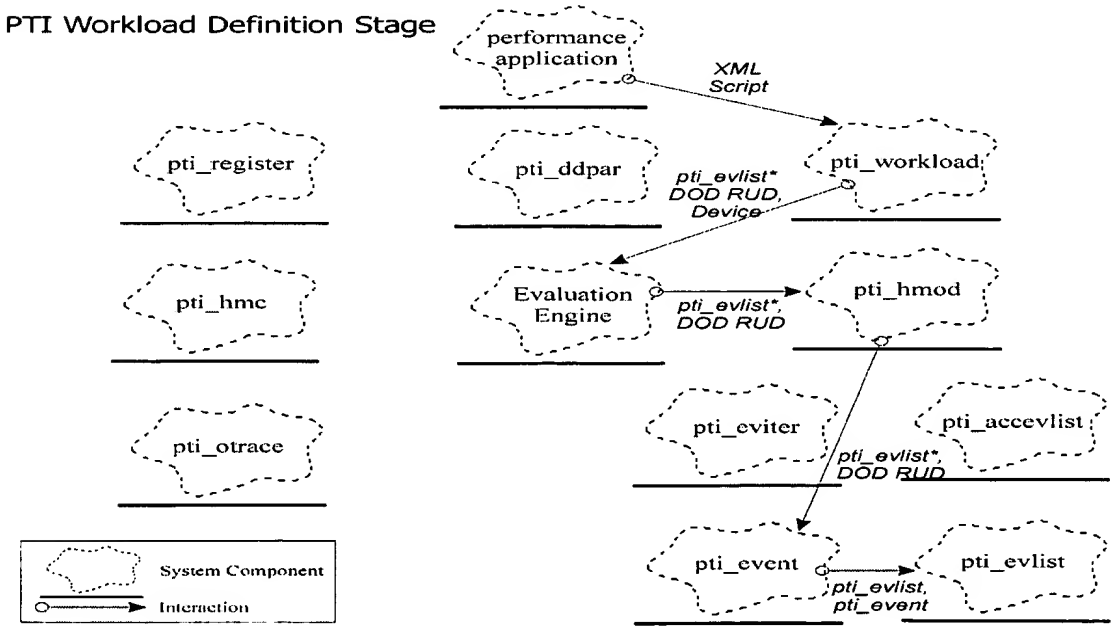


FIG. 8

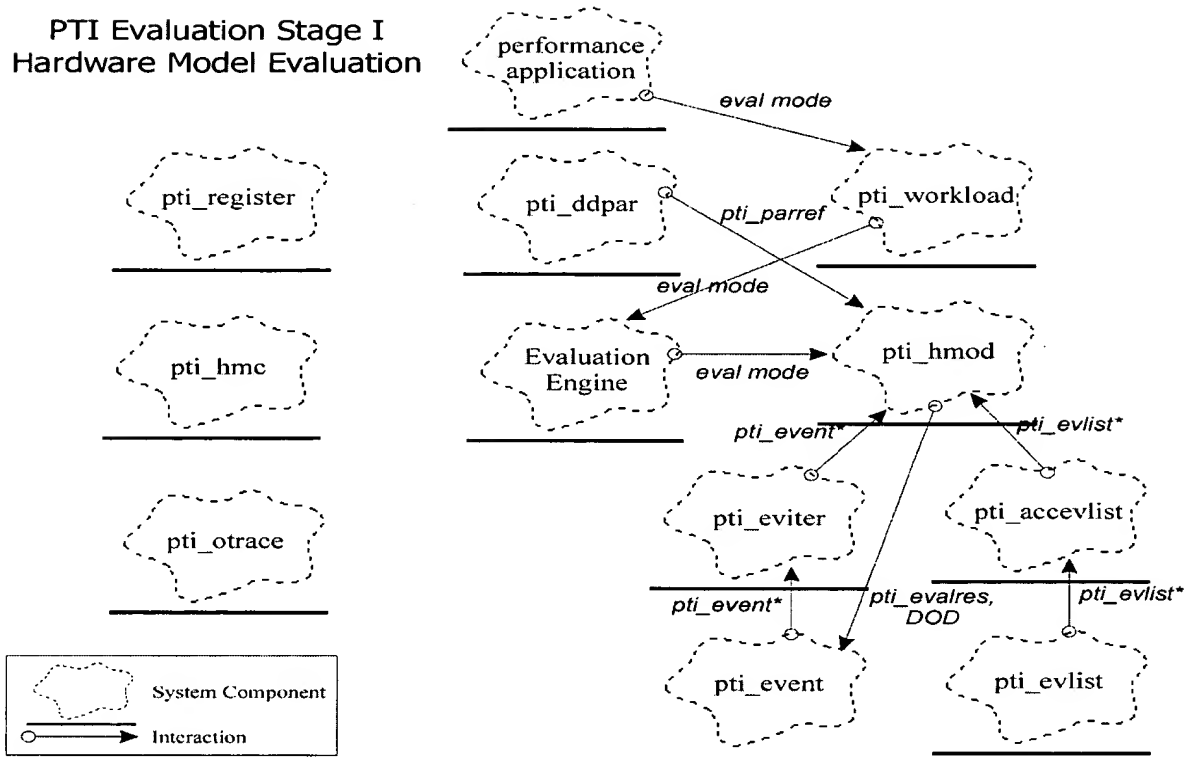

PTI Evaluation Stage I
Hardware Model Evaluation
performance application
eval mode
pti_register
pti_ddpar
pti_parref
pti_workload
eval mode
pti_hmc
Evaluation Engine
eval mode
pti_hmod
pti_otrace
pti_event*
pti_evlist*
pti_eviter
pti_accevlist
pti_event*
pti_evalres, DOD
pti_evlist*
pti_event
pti_evlist
System Component
Interaction

FIG. 9

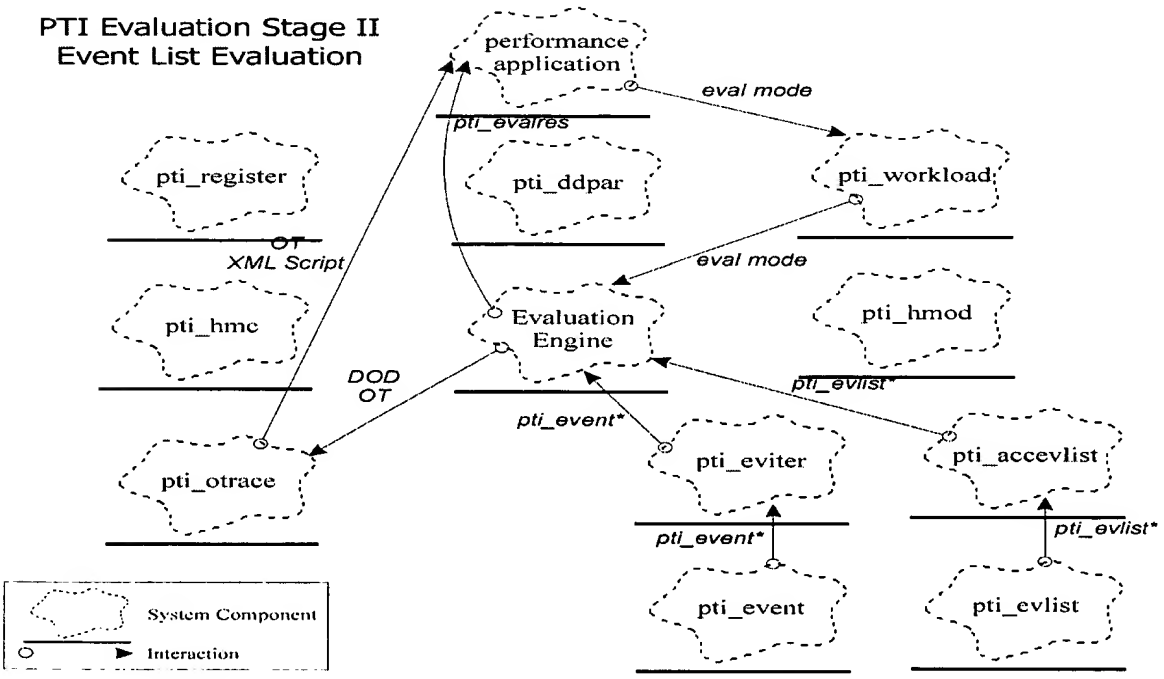
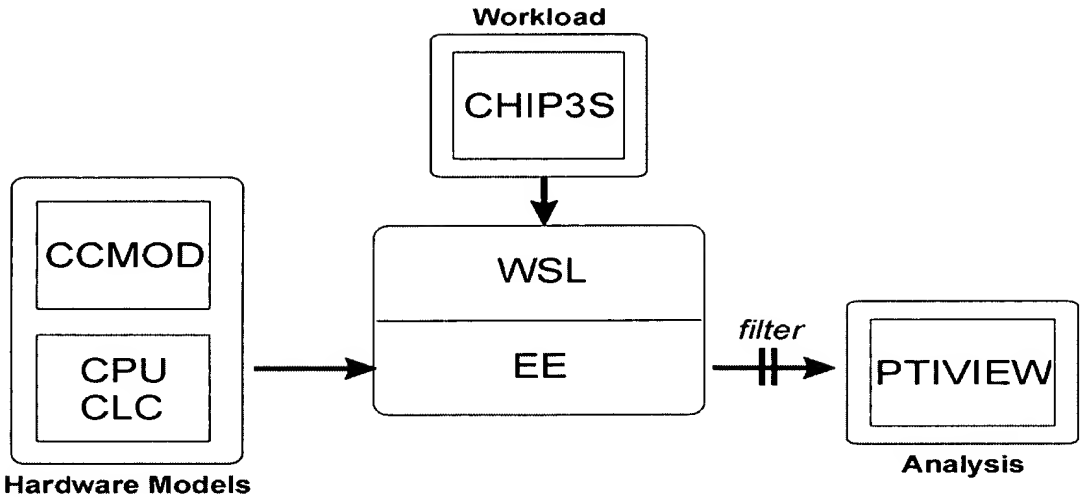

PTI Evaluation Stage II
Event List Evaluation
performance application
eval mode
pti_evalres
pti_register
pti_ddpar
pti_workload
OT
XML Script
eval mode
pti_hmc
Evaluation Engine
pti_hmod
DOD
OT
pti_evlist*
pti_event*
pti_otrace
pti_eviter
pti_accevlist
pti_event*
pti_evlist*
pti_event
pti_evlist
System Component
Interaction

FIG. 10



WSL - Workload Specification Language, EE - Evaluation Engine

FIG. 11

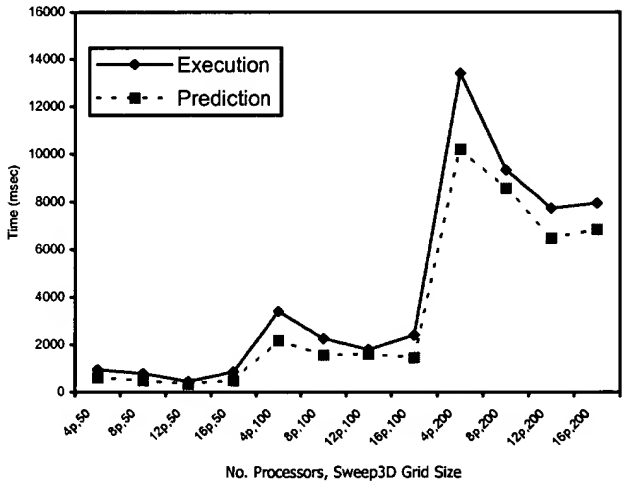


FIG. 12